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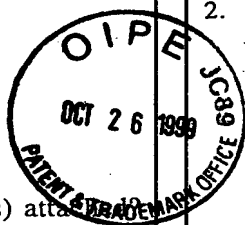
## U.S. PATENT AND TRADEMARK OFFICE

BOX ASSIGNMENTS  
Case Docket No. PF366

U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Office

RECORDATION FORM COVER SHEET  
PATENTS ONLY

To the Honorable Commissioner of Patents and Trademarks.  
Please record the attached original documents or copy thereof.



1. Name of conveying parties:  
Jian Ni (executed 4/13/98);  
Reiner Gentz (executed 4/20/98);  
Guo-Liang Yu (executed 4/15/98);  
Jeffrey Y. Su (executed 4/30/98); and  
Craig A. Rosen (executed 5/4/98).
2. Name and address of receiving party(ies):  
Name: Human Genome Sciences, Inc.  
Street Address 9410 Key West Avenue  
City Rockville, Maryland 20850

3. Additional name(s) of conveying party(ies) attached?  
Yes ☐ No ☒
- Nature of conveyance
- ☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Other \_\_\_\_\_
- Additional name(s) of conveying party(ies) attached?  
Yes ☐ No ☒

4. Title Death Domain Containing Receptor 5

5. Application number (s) or patent numbers (s)

A. Patent Application No. 09/042,583,  
filed March 17, 1998.

B. Patent No.  
Additional numbers attached?  
Yes ☐ No ☐

6. Name and address of party to whom correspondence concerning documents should be mailed:

Human Genome Sciences, Inc.  
9410 Key West Avenue  
Rockville, Maryland 20850  
Telephone: 301-309-8504 Facsimile: 301-309-8439

7. Total of applications and patents involved 1

8. Total Fee (37 CFR 3.41) ..... \$40.00

- ☐ Enclosed (By check in total of filing fee and Assignment Recordation Fee)  
☒ Authorized to be charged to Deposit Account

9. Deposit Account No. 08-3425 (Attached duplicated copy of this page if paying by deposit account)

10. If any additional fees due in connection with the recordation of this Assignment, please charge the same to Deposit No. 08-3425

11. Statement and Signature  
The best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

A. ANDERS BROOKES

Name of Person Signing  
36,373

Registration No.

[Signature]  
Signature

5/07/98

Date

Total number of pages including cover sheet, attachment, and documents: three (3)

## ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, each of the undersigned, Jian Ni, Reiner L. Gentz, Guo-Liang Yu, Jeffrey Su, Craig A. Rosen, hereby sells, assigns and transfers to Human Genome Sciences, Inc. ("Assignee") having a place of business at 9410 Key West Avenue, Rockville, MD 20850, its successors, assigns and legal representatives, his entire right, title and interest for the United States and all other countries, in and to the improvements(s) known as:

### Death Domain Containing Receptor 5


for which application for United States Letters Patent has been executed by the undersigned on 4/13, 20, 14, 30 & 5/4/98 also known as United States Application Serial No. 09/042,583, filed March 17, 1998, and in and to said application and all divisional, continuing, substitute, renewal, reissue and all other applications for Letters Patent which have been or shall be filed in the United States and all other countries on any of said improvements, and in and to all original and reissued patents which have been or shall be issued in the United States and all other countries on said improvements (hereinafter collectively, the "Patent Rights").

The undersigned further agrees that said Assignee may apply for and receive Letters Patent for said improvements in its own name; and, when requested, without charge to but at the expense of Assignee, its successors, assigns and legal representatives, to carry out in good faith the intent and purpose of this assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue and all other patent applications on all such improvements; execute all rightful oaths, assignments, powers of attorney and other papers; communicate to said Assignee, its successors, assigns and representatives all facts known to the undersigned relating to said improvements and the history thereof; and do everything possible which said Assignee, its successors, assigns or representatives shall consider desirable for aiding in securing and maintaining proper patent protection for said improvements and for vesting title to said improvements and all applications for patent and all patents on said improvements in Assignee, its successors, assigns and representatives.

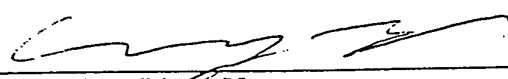
The undersigned hereby represents and warrants to Assignee, its successors, assigns and representatives that no assignment, grant, mortgage, license or other right or agreement affecting the rights and property herein conveyed has been made to others by the undersigned and that full right to convey the same as expressed herein is possessed by the undersigned.

The undersigned hereby grants the power to Robert H. Benson (Reg. No. 30,446), A. Anders Brookes (Reg. No. 36,373), James H. Davis (Reg. No. 40,582) and Kenley Hoover (Reg. No. 40,302) of Human Genome Sciences, Inc., 9410 Key West Avenue, Rockville, Maryland, 20850 to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, this Assignment is executed by the undersigned on the date(s) opposite their signature(s):

Inventor's Signature:  Date: 4/13/98  
Jian Ni

Inventor's Signature:  Date: 4/20/98  
Reiner L. Gentz

Inventor's Signature:  Date: 4/15/98  
Guo-Liang Yu

Inventor's Signature: \_\_\_\_\_

Jeffrey Y. Su

Date: \_\_\_\_\_

4/30/98

Inventor's Signature: \_\_\_\_\_

Craig A. Rosen

Date: \_\_\_\_\_

5/4/98



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

JULY 14, 1998

HUMAN GENOME SCIENCES, INC.  
9410 KEY WEST AVENUE  
ROCKVILLE, MD 20850  
ATTN: ANDERS BROCKES

RECEIVED

JUL 22 1998

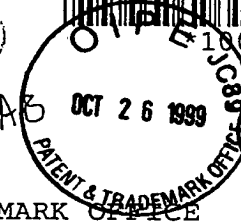


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HGS PATENT DEPT.

AA8

OCT 26 1999



COPY

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 05/11/1998

REEL/FRAME: 9165/0307  
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

NI, JIAN

DOC DATE: 04/13/1998

ASSIGNOR:

GENTZ, REINER

DOC DATE: 04/20/1998

ASSIGNOR:

YU, GUO-LIANG

DOC DATE: 04/15/1998

ASSIGNOR:

SU, JEFFREY Y

DOC DATE: 04/30/1998

ASSIGNOR:

ROSEN, CRAIG A.

DOC DATE: 05/04/1998

ASSIGNEE:

HUMAN GENOME SCIENCES, INC.  
9410 KEY WEST AVENUE  
ROCKVILLE, MARYLAND 20850

9165/0307 PAGE 2

SERIAL NUMBER: 09042583  
PATENT NUMBER:

FILING DATE: 03/17/1998  
ISSUE DATE:

MAYA BENNETT, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS



## U.S. PATENT AND TRADEM.

05-18-1998

BOX ASSIGNMENTS  
Case Docket No. PF36

100712878

CE

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party(ies) attached?Yes ☐ No ☒

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A. ANDERS BROOKES

Name of Person Signing  
36,373

Registration No.

Signature

5/07/98

Date

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### Death Domain Containing Receptor 5


for which application for United States Letters Patent has been executed by the undersigned on 4/13, 20, 14, 30 & 5/4/98 also known as United States Application Serial No. 09/042,583, filed March 17, 1998, and in and to said application and all divisional, continuing, substitute, renewal, reissue and all other applications for Letters Patent which have been or shall be filed in the United States and all other countries on any of said improvements, and in and to all original and reissued patents which have been or shall be issued in the United States and all other countries on said improvements (hereinafter collectively, the "Patent Rights").

The undersigned further agrees that said Assignee may apply for and receive Letters Patent for said improvements in its own name; and, when requested, without charge to but at the expense of Assignee, its successors, assigns and legal representatives, to carry out in good faith the intent and purpose of this assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue and all other patent applications on all such improvements; execute all rightful oaths, assignments, powers of attorney and other papers; communicate to said Assignee, its successors, assigns and representatives all facts known to the undersigned relating to said improvements and the history thereof; and do everything possible which said Assignee, its successors, assigns or representatives shall consider desirable for aiding in securing and maintaining proper patent protection for said improvements and for vesting title to said improvements and all applications for patent and all patents on said improvements in Assignee, its successors, assigns and representatives.


The undersigned hereby represents and warrants to Assignee, its successors, assigns and representatives that no assignment, grant, mortgage, license or other right or agreement affecting the rights and property herein conveyed has been made to others by the undersigned and that full right to convey the same as expressed herein is possessed by the undersigned.

The undersigned hereby grants the power to Robert H. Benson (Reg. No. 30,446), A. Anders Brookes (Reg. No. 36,373), James H. Davis (Reg. No. 40,582) and Kenley Hoover (Reg. No. 40,302) of Human Genome Sciences, Inc., 9410 Key West Avenue, Rockville, Maryland, 20850 to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, this Assignment is executed by the undersigned on the date(s) opposite their signature(s):

Inventor's Signature:  Date: 4/13/98  
Jian Ni

Inventor's Signature:  Date: 4/20/98  
Reiner L. Gentz

Inventor's Signature:  Date: 4/15/98  
Guo-Liang Yu

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of first joint inventor: Jian Ni

Inventor's signature: [Signature] Date: 4/1/98  
Residence: 5502 Manorfield Road, Rockville, MD 20853 Citizenship: CN  
Post Office Address: same as above

Full name of additional joint inventor: Reiner L. Gentz

Inventor's signature: [Signature] Date: 4/20/98  
Residence: 13404 Fairland Park Drive, Silver Spring, MD 20904 Citizenship: DE  
Post Office Address: same as above

Full name of additional joint inventor: Guo-Liang Yu

Inventor's signature: [Signature] Date: 4/14/98  
Residence: 13524 Straw Bale Lane, Darnestown, MD 20878 Citizenship: CN  
Post Office Address: same as above

Full name of additional joint inventor: Jeffrey Y. Su

Inventor's signature: [Signature] Date: 4/30/98  
Residence: 443 West Side Drive, #304, Gaithersburg, MD 20878 Citizenship: CN  
Post Office Address: same as above

Full name of additional joint inventor: Craig A. Rosen

Inventor's signature: [Signature] Date: 5/4/98  
Residence: 22400 Rolling Hills Road, Laytonsville, MD 20882 Citizenship: US  
Post Office Address: same as above



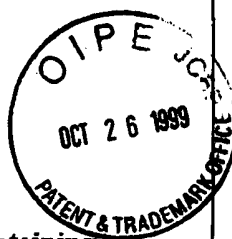
## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

NI *et al.*

Appl. No. 09/042,583

Filed: March 17, 1998

For: **Death Domain Containing  
Receptor 5**

Art Unit: 1646

Examiner: Kaufman, C.

Atty. Docket: 1488.1310002/EKS/EJH

**Declaration of Jian Ni, Reiner L. Gentz, Guo-Liang Yu, Jeffrey Y. Su, and  
Craig A. Rosen Under 37 C.F.R. § 1.132**Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

1. We, Jian Ni, Reiner L. Gentz, Guo-Liang Yu, Jeffrey Y. Su, and Craig A. Rosen, hereby declare and state as follows:
2. We are the named inventors of the captioned application, which is assigned to Human Genome Sciences, Inc. (HGS), a Delaware Corporation which has a principle place of business at 9410 Key West Avenue, Rockville, Maryland, U.S.A. We are present or former employees of HGS. This declaration is made to establish that Genbank Accession Number AA223122 was not described in a printed publication before Applicants were in possession of, in the United States, the relevant sequences described in the above-captioned application.
3. The relevant sequences were in the possession of the above identified inventors, in the United States, on or before February 19, 1997. The following is provided as evidence to such possession. As of February 19, 1997, we possessed a cDNA having the designation HLYBX88X, and having nucleotides 1 to 1007 identical to the polynucleotide sequence disclosed in the present application in Figure 1 (SEQ ID NO:1). Attached hereto as

- 2 -

Ni *et al.*  
Appl. No. 09/042,583

Exhibit A are two redacted IRIS electronic notebook pages<sup>1</sup> disclosing the nucleotide sequence of the cDNA HLYBX88X, which provides the basis for the foregoing demonstration. The "date sequenced," redacted from Exhibit A, is on or before February 19, 1997.

4. Each of the undersigned hereby declare:

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patents issued thereupon.

Date

10/20/99

Jian Ni

Date

10/26/99

Reiner L. Gentz

Date

Guo-Liang Yu

Date

Jeffrey Y. Su

Date

10/28/99

Craig A. Rosen

<sup>1</sup> IRIS is an electronic notebook used by HGS scientists to enter and maintain sequence data